

Worksheet 5. Application Summary**03-0061**

This worksheet will be posted on the web to notify the public of requests for critical use exemptions beyond the 2005 phase out for methyl bromide. Therefore, this worksheet cannot be claimed as CBI.

1. Consortium Name: Michigan Pepper Growers
2. Location: Michigan, USA
3. Crop: Peppers
4. Bromide Requested 2005 35,510 lbs.
Acres Treated with Methyl
5. Bromide 2005 825 Acres
6. If methyl bromide is requested for additional years, reason for request:
Additional time is needed to develop effective alternatives for *Phytophthora capsici*. Michigan State University has an active research program, and is making progress in disease management.

2006	<u>34,840</u>	<u>lbs.</u>	Area Treated	<u>810</u>	<u>Acres</u>
2007	<u>33,500</u>	<u>lbs.</u>	Area Treated	<u>780</u>	<u>Acres</u>

Place an "X" in the column(s) labeled "Not Technically Feasible" and/or "Not Economically Feasible" where appropriate. Use the "Reasons" column to describe why the potential alternative is not feasible.

Potential Alternatives	Not Technically Feasible	Not Economically Feasible	Reasons
1,3-Dichloropropene, Chloropicrin	X		Not effective.
1,3-D, Chloropicrin, Pebulate	X		Not effective.
1,3-D, Metam Sodium	X		Not effective.
Basamid	X		Not effective.
Basamid, Solarization	X		Not effective. Climate in Michigan is too cold for solarization.
Metam Sodium	X		Not effective.
Metam Sodium, Crop Rotation	X		Not effective. Pathogens long-lived.
Methyl Iodide	X		Not registered in USA.
Propargyl Bromide	X		Not registered in USA.
Biofumigation	X		Efficacy is not proven, requires solarization.
Solarization	X		Climate in Michigan, USA is too cold.
Solarization, Fungicides	X		Climate in Michigan, USA is too cold for solarization. Resistance has developed to registered fungicides
Steam	X		Not technically feasible for large scale agriculture.
Biological Control	X		Efficacy is not proven.
Cover Crops, Mulching	X		Not effective, already used in commercial production.
Crop Residue, Compost	X		Not tested against <i>P. capsici</i> , and efficacy can vary regionally.
Crop Rotation, Fallow	X		Not effective, pathogens long-lived, already used in commercial production.
Endophytes	X		Efficacy is not proven.
Flooding, Water Management	X		Flooding is not feasible, trickle and raised beds are used, but frequent heavy rains favor disease.
General IPM	X		Utilized by growers, but is not adequate for disease control.
Grafting, Resistant Rootstock,	X		Resistant rootstock has not been identified. Would not be effective against root rot.
Plant Breeding	X		Resistance levels not adequate

Worksheet 5. Application Summary Continued

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Organic Amendments, Compost	X		Not tested against <i>P. capsici</i> .
Planting Time	X		Not effective, <i>P. capsici</i> is a problem year-round.
Plowing and Tillage	X		Not tested against <i>P. capsici</i> .
Resistant Varieties	X		Resistant varieties have not been identified.
Soilless Culture	X		Volcanic ash, rockwool are not viable alternatives for large-scale production in Michigan USA.
Substrates, Plug Plants	X		Primary pathogens are not disseminated on seed or transplants.

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Pre Plant